

**Minutes of the Carlisle Board of Health  
June 9, 2015**

Board Appointments  
Minutes 5/12/15 (pending), 5/26/15  
Bills  
Administrative Reports

104 Canterbury Court – replacement of failed system

**DISCUSSION ITEMS**

- Lyme Disease Subcommittee – appointment
- Manure and Swine Regulations – Final
- 100 Long Ridge Road – Waivers
- FY16 Contracts
- Benfield Updates
- Fox Hill Irrigation
- Engineering Hours - schedule

**NEW BUSINESS**

The meeting was called to order by the Chairman at 7:00 pm at town hall. Present were Board members Bill Risso (Chairman), Lee Storrs, Catherine Galligan, Todd Thorsen, and Donna Margolies. Also present Linda Fantasia, Health Agent and Alex Brewster (Carlisle Mosquito).

**MINUTES – It was moved (Galligan) and seconded (Margolies) to approve the minutes of 5/26/15 as amended. Motion passed 5-0-0 (Storrs arrived).**

**BILLS – Staff payrolls, Animal Inspector Stipend, PFS Inspections. It was moved (Galligan) and seconded (Thorsen) to approve the invoices as presented for payment. Motion passed 4-0-0 (Storrs had not arrived).**

**104 CANTERBURY COURT –** Colum O'Donnell, owner, and William Hall, Stamski & McNary Inc., appeared before the Board.

Hall explained that the proposed design includes a Presby Advanced Enviro-Septic soil absorption system to replace the existing system which has failed. The Presby allows for a 40% reduction in system size and a 2' reduction to estimated seasonal high water table. The system is approved for Remedial Use. A Title 5 Inspection conducted on 4/6/15 showed the system to be in failure due to backup into the distribution box. The tank also is not structurally sound and needs to be replaced. The design includes an effluent tee filter which is a requirement of the DEP approval even though Presby does not recommend them.

The Board noted that testing was done in 2005 to replace a failing system. The work was never done. O'Donnell explained that they had a backup problem in 2005 but were able to have the lines flushed. The system itself was not in failure. The system is designed for a garbage grinder at the owner's request. Although the design does not call for any waivers, it is the Board's policy to review designs that include a reduction in the offset to groundwater. Board members did not have any problems with the design. Fantasia will approve the plans and issue a letter of approval.

**BOARD APPOINTMENTS**

Board reorganization is required following the annual election. Risso offered to step down as chairman if another Board member was interested in the position. Galligan said she prefers to remain as Treasurer and Margolies was willing to stay on as Vice-Chairman. Storrs and Thorsen would prefer to have more experience before becoming an officer.

**Margolies nominated Risso as Chairman; Storrs nominated Galligan as Treasurer/Secretary; Thorsen nominated Margolies as Vice-Chairman. Galligan moved to accept the slate of officers as nominated. Motion passed unanimously.**

## **ADMINISTRATIVE REPORTS – June 9, 2015**

**MEMA Workshop** - This is a workshop for planning for a large-scale evacuation, mass care and sheltering activities. Galligan, Fantasia, Risso and Margolies attended. Communities must plan for a local shelter following the initial event. Carlisle does not have a Citizen Emergency Response Team (CERT). There was one in Concord but it is no longer active. Risso and Margolies did training under the Concord CERT. Carlisle needs to establish a local shelter committee that could work with the Carlisle Medical Reserve Corps (MRC). The MRC Executive Committee should meet. Galligan appreciated learning about the NERAC resources that are available to communities. Communication among the various agencies involved in emergency response is important. MEMA is planning on a table top exercise for mass evacuation and sheltering sometime in the fall.

**Web EOC Drill** – This was an advance notice drill conducted on 5/21/15. It was a severe HHAN (Health and Homeland Alert Network) alert. 97% of Region 4A communities confirmed the alert within 60 minutes. Carlisle responded within 2 minutes. The next drill will be unannounced.

**Vacation Schedule** – Fantasia 6/15-6/19. Lyman and DPH Intern will cover.

## **DISCUSSION ITEMS**

**Benfield Farms Development** – Warren Brown, tenant and Alan Carpenito, town resident were present.

Fantasia and Frado visited Benfield during the week. There were no odors around the manhole covers. There were normal, earthy odors near the pump house. The same odor was also noticeable in the parking area which might be of concern for visitors. Brown said there was a sulfur smell one day but it has diminished. He does not trust that the odor problem has been resolved. Galligan said there is an option of installing a Biovent to diffuse the odor. Board members have noticed strong odors around the vent pipes. Carpenito questioned why there should be any odor. There is public access to the property. Any odor is an annoyance. Brown said he was frustrated that he has been living at Benfield for almost a year and the problems have not been resolved. Risso agreed that a year is far too long for start-up issues. According to the DEP approval the FAST system should only require about 30 days to reach normal operations. Carpenito said there have been complaints about odors in the buildings. Galligan said these appear to be from dry traps. This should be easy to correct with proper maintenance. Risso said the school has auto-feeds to avoid these problems.

Brown wanted to thank the Board for their interest. He said there has been a sudden response from the management company as a result. The Board noted that it is happy to support the residents in resolving the situations but their first contact should be to the Carlisle Housing Authority which has more authority over the site. Risso had been told by Alan Lehotsky that the dumpster was emptied but filled again with discarded furniture. This would not be typical. The management company may need to supervise disposal.

**Fox Hill Irrigation System** – Present for the discussion was John Bakewell and Kevin Brown.

Bakewell explained that he and Brown have a farming agreement from the Conservation Commission on section of Fox Hill. The area is fenced off and has an irrigation well which is hand pumped. It is difficult to keep the crops watered during the dry season. They would prefer a steady stream of water. They have received permission from the Carlisle Housing Authority to attach a hose to the water supply at 338 Bedford Road in order to feed the irrigation tubing at the garden. They would install a backflow device on the spigot to protect the drinking water. When the house is demolished for the construction of the new group home, other arrangements will have to be made. The water will not be used for drinking and will be posted. They would provide access to the garden for residents of the group home. The Board did not have a problem with connecting to the 338 Bedford Road property as long as the water was not used for drinking. If it is, a drinking grade hose would be needed. The Board noted that the Conservation Commission should also review the request since they are the land managers.

Carlisle Board of Health Minutes

Meeting Date: June 9, 2015

Approved: July 14, 2015

**Lyme Disease Subcommittee Appointment** – the Board reviewed an application from Jeanne Geneczko. Natalia Evgenov has resigned from the committee. The Board was impressed with Geneczko's resume which centered on research and development in the high tech semiconductor industry. The Board agreed, however, that the position should be advertised before making the appointment.

**Manure and Swine Regulations and Animal Management Forms** – the final edits were made to the drafts. Galligan who is also on the Noise Committee said the Noise Committee would like the barn application forms to track roosters in town. This is a state form and may not be adaptable. Applicants are asked to list types of animals but sometimes roosters are listed as poultry. Margolies and Thorsen questioned why the Board would need this information and whether it would put a burden of enforcement on the Board. Storrs said the present system responds to complaints. The Board agreed that there is really no purpose or benefit to tracking numbers of roosters.

The Board made some minor edits to the final drafts. The Board's summer intern is creating a brochure on "best management" practices for animal owners which will be distributed with license applications in August.

**It was moved (Galligan) and seconded (Thorsen) to approve the revised Animal Management Forms and Swine and Manure Management Regulations with the understanding that some minor clerical edits will be done prior to publication. Motion passed 5-0-0.** The revised regulations will be effective as of the meeting date of June 9, 2015.

#### **Lifetime Green Homes (LGH) 100 Long Ridge Road – Waivers**

The Board discussed the local health waivers that the Zoning Board was being asked to grant. Most of them have to do with the design flow requirements for large systems (165 gpd), setback distances to wells (150') and a maximum of 5 mg/l of nitrogen at the project perimeter and/or sensitive receptors.

15.100- no elevation of groundwater beyond project perimeter and a maximum of 5 mg/l.

- Galligan did not support granting any of the waivers. She felt the project was too dense and the water and sewer systems very complex. The more complex a system is, the more critical are its components. Even a small error in assumptions could be catastrophic given the complexity of the systems. Because of the density of the project to the area available, there is no alternative to mitigate problems.
- Thorsen said the design changes have been made only to fit the necessary calculations, without regard to the environment.
- Storrs said he is concerned that all of the various groundwater flow models demonstrate that the septic systems cannot meet a 10 mg/l of nitrogen to sensitive receptors, much less the 5 mg/l required locally. This is a health issue. Nitrates cause "blue baby" syndrome which is a serious illness.
- The Board recognized that the Zoning Board needs to understand the purpose and justification behind the local regulations, and why waiving them will cause serious harm to public health and the environment.
- 5 mg/L of nitrogen: EPA has a 10 mg/l standard. Carlisle has a 5 mg/l limit as a safety margin so that there should never be an exceedance of the EPA standard.
- Carlisle also requires no rise in groundwater elevation at the property line. This is intended to prevent mounded groundwater from affecting adjacent properties. Flows from a standard size system do not result in significant mounds. Wastewater can be treated vertically with little horizontal movement. Large systems create high mounds which can result in horizontal flow of effluent onto adjacent properties. The Board noted that without a specific design to review it must base its decision on the models. These indicate significant mounding for the three systems. Two systems are close together and to the property line. This presents an added burden environmentally.
- The proposed development will have only private wells. Private wells do not have the pump test requirements of a public supply. The number of wells increases the potential for pollution in the bedrock fractures. Very little information has been presented on the bedrock aquifer to judge the degree to which the aquifer could be harmed or whether there is sufficient yield to support the project without impacting nearby private wells.
- Lack of data has been the biggest obstacle in evaluating the health and environmental impacts of the project.

- Jim Persky, now with the DEP Water Drinking Program, authored a study on Cape Cod that showed housing density contributes to drinking water pollution. The report dealt mainly with wells in the overburden which is the only part of the LGH project that has been studied and which shows an increase in nitrogen levels greater than 10 mg/l. If wastewater is intercepted by a bedrock fracture before it is fully treated, the pollution will spread rapidly to any water supplies utilizing the same aquifer.

15.211 – setback distances 150’ between a large system and a well

- There has been no documentation showing that nearby wells will not be impacted.
- The Zone I protective radius of a public well is usually much larger than the local 150’ setback. At a minimum a private well should meet the 150’ setback to a large system since it does not require a Zone I.
- The Board of Health has authority under 15.001 to base its decisions on “site specific” conditions. The Board is expected to use its local knowledge in protecting health and the environment. Title 5 is not intended to be a uniform code for every community in the state.
- 15.221 – 165 gpd for large systems and condominiums. The Board was unanimous that under no conditions should the Zoning Board grant this waiver.
- Historically this has always been applied to multi-family developments and there have yet to be any system failures.
- The 165 gpd increases the size of the dispersal area, not the flows. A larger area spreads out the force of the vertical flow thereby helping to reduce the mounding height below the system. A smaller dispersal area results in a more forceful vertical flow. This may result in pollution reaching groundwater.
- The project is in an area of high water table and ledge which may reduce the efficiency of treatment. A larger dispersal area provides a safety margin.
- The 165 gpd was originally based on requiring a garbage grinder allowance as a safety margin. Grinders produce a sludge that can clog a system. A larger dispersal area can offset this problem. The same theory can be applied to large systems as a safety factor.
- LGH may be reducing the size of the treatment areas with alternative technology. Final designs have not been submitted. The additional required capacity will help to offset any reductions in treatment area.

In case the waivers are granted, the Board agreed to recommend specific conditions to help guarantee the functioning of the systems. These would include metering effluent to verify that the 110 gpd is not exceeded. The Board would need more information to establish appropriate monitoring criteria. Monitoring wells (3 per system) would also be important. The purpose of the wells would be to detect contaminants before they cause harm.

**It was moved (Galligan) and seconded (Storrs) that for the reasons stated above the Board of Health does not recommend that the Zoning Board grant the local health waivers requested by Lifetime Green Homes, specifically the sewage disposal regulations 15.100, 15.211, 15.221, 15.290-293 and water supply regulation VI. Motion passed 5-0-0.** A memo will be sent to the Zoning Board.

**Contracts** – The Board reviewed a revised fee schedule for Technical Consulting Group of 2.5% per year and Phelps Food Service. The Contracts are for a three year period beginning July 1, 2015.

**It was moved (Storrs) and seconded (Thorsen) to approve the contract with Technical Consulting Group. Motion passed 5-0-0.**

**It was moved (Galligan) and seconded (Thorsen) to approve the contract with Phelps Food Service. Motion passed 5-0-0.**

**Food Establishment Inspections** – Ferns and the Carlisle School were inspected. No problems were noted.

**Engineering Hours** – The Board discussed adding additional engineering hours when demand for testing increases. There has been a backlog of testing dates recently. Fantasia did not think the wait time was excessive. Sometimes it is the engineering firm that is not available. Frado is willing to do additional days if needed. There have been times

when this is done automatically. When a large parcel of land is tested, it is usually done on a day other than Wednesday to keep the regular day available for inspections. This is worked out with the engineering firm.

The Board agreed to set limits so the additional time is not abused. Since the Board does not have a fulltime engineer, testing must be coordinated in advance. It was agreed that if testing must be delayed more than two weeks, the Board will ask Frado to add a day. This will be an internal policy and it will be up to the Board to decide when to employ it. The Board already has a policy for requesting special engineering services. Since scheduling additional services impacts the office workload, these requests must be based on need. There is an additional charge for the service.

**Meeting Dates:** 7/14/15, 7/28/15, 8/11/15, 8/25/15, 9/15/15, 9/29/15.

There was no further business. Meeting voted to adjourn at 9:35 p.m.

Respectfully submitted,

Linda M. Fantasia  
Recorder